

### Amendments to the Abstract

Please replace the Abstract with the following amended Abstract:

A method for identifying a set of objects in a target application program includes ~~comprises~~: receiving a plurality of samples of one or more object reference graphs, wherein each object reference graph includes ~~comprises~~ live objects and their references; deriving a ~~plurality set of~~ candidate data structures from the samples; ~~determining~~ collecting a plurality of properties of each of the live objects in relation to data structures over time; and using a mixture model, combining the plurality of the properties of each live object in a non-linear manner for ranking leak root candidates within each set of candidate data structures; ~~generating the object reference graph; generating a rank; and identifying suspicious regions that are likely to have leaks within the data structure.~~ The method also includes ~~comprises~~ the identification of an initial set of highly-ranked candidate objects that are possible causes of at least one object leak, wherein the higher the ranking the smaller the identified set.